

REMARKS

The Office Action mailed April 15, 2008, has been received and the Examiner's comments carefully reviewed. In the present response, claims 1-20 are pending, and claims 1, 9, and 14 are amended. Support for these amendments can be found at least at pages 8 and 13-17 of the present application. No new matter has been added. Favorable reconsideration of this application is requested in view of the following remarks.

Claim Rejections - 35 USC § 101

In the Office Action claims 9-13 have been rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The Office Action alleges that claim 9 recites software *per se* as the system components are merely software. Applicants respectfully traverse this rejection.

The Office Action indicates that claims 9-13 are directed to non-statutory subject matter because "software itself is non-statutory [and] the claims provide no hardware to implement the software." However, it is not necessary to claim hardware implementing a software program to render a claim statutory. Rather than requiring hardware implementing a software program, the claim can validly require that claimed software have an overall tangible effect in order to be statutory. M.P.E.P. § 2106. In the present application, the overall effect of workload balancing allows an administrator to prioritize computer-implemented tasks, allowing coordinated completion of tasks, improved implementation of reboot processes, etc. See Application at 22. Therefore, Applicants believe that the rejection of claims 9-13 is improper.

Nevertheless, and notwithstanding the above remarks, Applicants have amended claim 9 in the present response. The claim, in its present form, requires at least that the application locator module be "executable on a partitioned multiprocessor computer system." Further, the claim requires an additional requirement that "the affinity mask is adjustable during system operation as a function of CPU utilization." Both of these newly added elements provide further association between the software-implementable claim elements and the physical environment in which they are executed. At least because of these amendments, the claim as presented recites statutory subject matter.

For at least the above reasons, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 9, and claims 10-13 which depend therefrom.

Claim Rejections - 35 USC § 102

In the Office Action Claims 1-20 are rejected under 35 U.S.C. § 102 as being anticipated by Microsoft Technet's, "Best Practices for Managing Applications with Process Control". Applicants respectfully traverse the rejection of the claims.

A. Claims 1 and 14

Independent claims 1 and 14 currently recite, among other elements, "dynamically managing the affinity mask for the application group by adding and removing processors from the affinity mask using priority values for the grouped installed software application, wherein the affinity mask is adjustable during system operation as a function of CPU utilization." As explained below, Applicants observe that (1) the Office Action does not make a *prima facie* case that the claims are anticipated by Microsoft Technet, and (2) claims 1-8 and 14-20 are allowable because at least this element is neither disclosed nor suggested by Microsoft Technet.

1. The Office Action fails to make a *prima facie* case of anticipation of claims 1 and 14.

As an initial matter, the Office Action fails to make a *prima facie* case of anticipation under 35 U.S.C. § 102(b). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. § 2131; Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). In the present case, each and every element is not expressly or inherently described in the cited reference, Microsoft Technet.

Each of claims 1 and 14 continue to require "dynamically managing the affinity mask for the application group by adding and removing processors from the affinity mask using priority values for the grouped installed software application." This element is absent from Microsoft Technet. In fact, the Office Action recognizes this fact, and indicates that "Microsoft [Technet] does not explicitly state dynamically managing the affinity mask for the application group by adding and removing processors from the affinity mask using priority values for the grouped

install software application.”¹ Office Action at 3. The Office Action also does not indicate that use of priority values is inherent in Microsoft Technet. This is because that reference describes adjustment of an affinity mask using a manual process control user interface. In the specific examples described in Microsoft Technet, affinity is established among processes based on Job Object type (e.g. cpu* and mem* job objects), not priority. See Microsoft Technet at 16-21. In that reference, it is only after process groups are set that priority is established for a process group. Id.

Because the Office Action does not allege the presence of each element of claims 1 and 14, and because Microsoft Technet in fact does not disclose each element of claims 1 and 14, Applicants assert that the present rejection is improper, and should be withdrawn. Applicants therefore respectfully request reconsideration and withdrawal of the rejection of claims 1 and 14.

2. Claims 1 and 14 are allowable at least because Microsoft Technet fails to disclose *or suggest* various aspects of at least one element of those claims.

As previously mentioned, claims 1 and 14 require “dynamically managing the affinity mask for the application group by adding and removing processors from the affinity mask using priority values for the grouped installed software application, wherein the affinity mask is adjustable during system operation as a function of CPU utilization.” Applicants assert that claims 1 and 14 are allowable at least because Microsoft Technet fails to disclose or suggest at least this aspect of each of these claims.

In a first contrast with pending claims 1 and 14, Microsoft Technet fails to disclose or suggest an affinity mask that is adjustable during system operation as a function of CPU utilization. The process groups disclosed in Microsoft Technet are manually created and linked via an affinity setting. See Microsoft Technet at 16, et al. This affinity setting groups the processors according to the rules created by the system administrator, and remain in place even when all rules are deleted. Id. (“If you remove all the rules, the affinity still will be the same for the processes.”). There is no disclosure or suggestion of use of CPU utilization to adjust an affinity mask, as required in the claims.

¹ The Office Action appears to use language relating to a rejection under 35 U.S.C. § 103 in making the § 102 rejection. Although Applicants believe that the present rejection has not made a *prima facie* case of anticipation under § 102, to advance prosecution Applicants describe the allowability of the pending claims over the reference in terms of both § 102 and § 103 in part A.2.

In a second contrast, Microsoft Technet fails to disclose or suggest dynamically managing the affinity mask for the application group by adding and removing processors from the affinity mask using priority values for the grouped installed software application. As explained above in part A.1, it is only after the process groups are set in Microsoft Technet that priority is established for a process group. Therefore, although the Office Action asserts that "Microsoft [Technet] demonstrated that it was known at the time of invention to manage the affinity mask based upon need," the reference in fact discloses that priorities are set by group, and are not used to create groups. Therefore, the teachings of Microsoft Technet are in fact incompatible with the system recited in claims 1 and 14, and cannot be said to suggest use of priority values to establish the affinity mask.

For at least the above reasons, Applicants respectfully assert that independent claims 1 and 14 are not disclosed or suggested in Microsoft Technet. Applicants therefore respectfully request reconsideration and withdrawal of the rejection of these claims.

B. Dependent claims 2-8 and 15-20

Claims 2-8 depend from claim 1, and claims 15-20 depend from claim 14. Each of these claims inherits all of the limitations of the independent claim from which it depends. Applicants therefore assert that these dependent claims are not anticipated for at least the same reasons as independent claims 1 and 14, and respectfully request reconsideration and withdrawal of the rejection of these claims as well.

C. Claims 9-13

Claim 9 is amended in the present response to clarify that "the affinity masking is adjustable during system operation as a function of CPU utilization." As now indicated in the claim, the affinity mask applied across a number of application processes can vary during operation of the system, and can do so according to those processes' CPU utilization. Applicants assert that at least this element is not taught by Microsoft Technet.

In contrast to claim 9, Microsoft Technet discloses setting process groups manually, according to rules created by a system administrator. These rules remain in place, even when deleted. See Microsoft Technet at 16, et al. ("If you remove all the rules, the affinity still will be the same for the processes. You have to stop all the processes first, then remove the rules.").

Because Microsoft Technet requires that the processes be stopped prior to changing affinity rules, it follows that all processes that are part of the process group must use no CPU time when the rules setting the process group be removed. Therefore, the affinity settings of Microsoft Technet cannot be altered "during operation of the system", and certainly are not altered during operation based on the processes' CPU utilization.

For at least the above reason, Applicants assert that claim 9 is not anticipated by Microsoft Technet, and respectfully request reconsideration and withdrawal of the rejection of the claim. Applicants also respectfully request reconsideration and withdrawal of the rejection of claims 10-13 which depend from claim 9.

Conclusion

It is respectfully submitted that each of the presently pending claims is in condition for allowance and notification to that effect is requested. Although certain arguments regarding patentability are set forth herein, there may be other arguments and reasons why the claimed invention is patentably distinct. Applicants reserve the right to raise these arguments in the future. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone Applicants' attorney, Richard Gregson, Reg. No. 41,804, at (215) 986-3325.

Respectfully submitted,

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